King County

Office of Information
Resource Management

IT Reorganization Program
For Executive Branch IT

Updated Benefits Realization Plan

September, 2009
Version 2.1

Revision History

Version	Description of Change	Date	Author
1.0	Initial document	August 2008	John Klein Sharon Glein Patti Cole-Tindall
1.1	Minor edits / formatting	August 2008	John Klein
2.0	2009 Update	June 2009	Dennis Barnes
2.1	2009 Update	September 2009	Dennis Barnes

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Purpose

As progress has been made on the Information Technology (IT) Reorganization program, changes to the benefits that are expected from the program have also been identified. Because this is an expected occurrence with most IT projects, both the IT project management methodology and the IT cost savings methodology recommend that updates to a project's expected benefits are documented and communicated when significant. This document is intended to provide that update for the IT Reorganization program.

The goal of this document is to communicate with all IT customers, stakeholders, and members the current benefits related to cost savings at an overall program level as well as the various initiatives contained within the IT Reorganization program. In addition to updating these estimates, additional savings have been identified related to improving the overall maturity of our operations in several key areas: server operations, desktop operations, and service center operations. Additional maturity improvements can take place once Organization Transition and the Technology Initiatives have been implemented.

It is important to have a common and current understanding to fully understand the impact that IT Reorganization is expected to have on the County's fiscal health. This is primarily true with financial projections but will also be important to customer service efforts and related service levels.

History Related to IT Reorganization

The need for IT reorganization, in order to improve King County's ability to deliver IT services, was initially identified through several consultant reports. These studies included the initial Strategic Technology Plan (2002), the Total Cost of Ownership Report (2004), and the countywide IT Organization Model (2004). The essence of these reports was that King County should make changes to the decentralized, fragmented organization structure that supported the management of the County's IT functions.

They noted that King County lacks coordinated organization structures to support countywide IT functions and technologies, suffers from a proliferation of servers, and has limited IT performance management information, among other things. The results expected from making organizational changes include a clear line of accountability for Executive branch IT, improvements in the security and reliability of services, reductions in overall costs to provide IT, and an improved foundation from which to take advantage of emerging technologies that will more efficiently and economically support public services and decision making.

Because of these reports, the King County Council issued a Proviso in 2005 directing a countywide IT reorganization. Approval followed in 2006 through:

- Strategic Advisory Council (SAC) endorsement of a phased strategy to address the Executive branch in phase one and separately elected departments in phase two based on results of phase one;
- Executive Transmittal to the King County Council of:
    - Executive Recommendation on IT Reorganization,
    - Business Case for IT Reorganization.
    - IT Reorganization Transition Work Plan, and
- King County Council Adoption of Executive Recommendation through Motion 12323.

In 2007 the IT Reorganization program was launched in order to implement the Executive's recommendations that were adopted by the King County Council. In early 2008, an "IT Reorganization Road Map" was created to better communicate this history as well as the overall progress and plans for the program. This roadmap is attached as Appendix A - IT Reorganization Roadmap. The program addresses five areas:

- Organization Transition – includes an assessment of the IT organizations and the development and implementation of organization transition plans to a single line of accountability to the CIO.
- Technology Initiatives:
    - Workstation Standardization – includes deployment of alternate workstations and standardization of PC management.
    - Server Consolidation - includes a business case for server consolidation, shared file, print and database services, and server, storage, backup and recovery services.
    - Service Center – includes short term help desk improvements and longer term improvements to implement a service center.

- Service Delivery Improvements (previously called Enterprise Architecture) - includes service delivery plans, service level management, performance measurement, change management, and standardization of IT processes, practices, and services.

Currently Phase 1 of IT Reorganization is addressing these items for Executive branch IT. Phase 2 is planned to implement these initiatives for Separately Elected IT.

Executive Summary

The goals of Phase 1 of the IT Reorganization program are to create a clear line of accountability for Executive branch IT, improve the security and reliability of services, reduce overall costs to provide IT services, and improve the technology foundation in order to better take advantage of emerging technologies. Phase 2 will focus on these same things for Separately Elected IT. The IT Reorganization program has evolved since its initial approval by the King County Council (Motion #12323) and subsequent program launch in 2007. Phase one of this program, focusing on Executive branch IT, now includes three primary focus areas; Organization Transition, Technology Initiatives, and IT Operational Maturity.

Initial focus of the program has centered on **Organization Transition**. All Executive branch departments and central IT services (OIRM) have updated their IT organizational structures with the goal of having all IT staff reporting up through their IT management to the Chief Information Officer (CIO). Completion of these efforts accomplishes several program goals including clear lines of IT authority, strengthened accountability for results, and enables a customer service orientation throughout the IT organization.

The success of the identified **Technology Initiatives** relies heavily on structural and cultural changes being implemented through Organization Transition. The original Technology Initiatives of server consolidation, workstation standardization, service center, and service delivery improvements (formerly called enterprise architecture) have identified multiple projects. Some of these projects have completed and others are underway.

IT Operational Maturity has been identified as a valuable program addition based on staff research and investigation into King County's current infrastructure capability and maturity as compared to other, similar organizations. While the County is currently assessed at slightly above average when compared with its peer group, the assessment process also identified specific areas for improvement in how the County's technology infrastructure is operated. These areas align well with several of the current Technology Initiatives in the areas of server operations, desktop (workstation) operations, and service center operations. This effort will implement best practices as well as automated/pro-active toolsets to improve the management of the County's server and workstation operations

The current projected on-going, annual savings to the County from implementing the IT Reorganization Capital Program and related projects is estimated at just over $5.4 million and $23.1 million from 2008-2013 with a total reduction of 28.5 positions from 2007-2010. Additional labor efficiencies have been identified separately as hours of productivity savings for projects that are active in 2009 and 2010 and potential future savings as part of IT Operational Maturity. Identified productivity hours will be available for re-purposing to critical areas of need or to improve customer service.

Overall Savings Summary

Overall benefits from the IT Reorganization program are broad and include expected dollar savings, labor efficiencies, service improvement, and other non-quantifiable improvements that are expanded on in future sections of this document.

Projected Cost Savings

The current projected on-going savings to the County from implementing the IT Reorganization Capital Program and related projects is estimated at just over $5.4 million annually and almost $23.1 million from 2008-2013 with a total reduction of 28.5 positions through attrition from 2007-2010.

Since 2007 the Executive branch IT has annually evaluated staffing levels across the IT function leading to reductions of 3.0 FTEs in 2007, 3.0 FTEs in 2008, and 9.0 FTEs in 2009 for a total reduction of 15.0 FTEs. There is the potential of an additional reduction of 13.5 FTEs in 2010; 7.0 FTEs are dependent on additional funding for the IT Reorganization Program currently in the 2010 budget request; and 6.5 FTEs are pending the Council's consideration. This would bring to 28.5 the total number of positions reduced between 2007 and 2010. Anticipated annual on-going savings from reduced positions is $3.1 million or a total of $13.5 million for the years 2008-2013.

Anticipated annual on-going savings from the Technology Initiatives for non-labor costs are approximately $1.8 million per year with savings over the next five years projected at approximately $6.9 million. Additionally, two active Technology Initiatives in 2009-2010, Workstation Standardization and Server Consolidation are expected to produce annual productivity efficiencies of 5,500 hours, and 10,600 hours respectively. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to areas in critical need or to improve customer service.

In addition to savings from the Technology Initiatives, savings are also identified from existing projects that are directly related to the IT Reorganization program, such as power management. These projects have a potential annual on-going savings of $0.52 million.

Finally, increasing IT Operational Maturity by implementing automated tools along with operational best practices has the potential for additional labor efficiencies of over 41,000 hours annually. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to areas in need or to improve customer service. IT Operational Maturity benefits can only be accomplished once related Technology Initiatives have been completed. As can be seen from the projects included, IT Operational Maturity does not cover all areas addressed in the Technology Initiatives, but focuses on those areas of infrastructure where significant improvement through increased capability and maturity is possible.

The following table provides a summary of investment, total savings, annual savings, and productivity associated with the IT Reorganization Program. Investment amounts include an additional $0.96 million for reorganization of Executive branch IT which is being requested in the 2010 budget process for continued Service Center, Server Consolidation and Organization Transition activities.

Saving Opportunities	Investment*	Projected Net Savings 2008 - 2013	Projected On-going Annual Net Savings	Projected Annual Productivity Hour Savings	Notes
IT Reorganization Capital Program					
Organization Transition					
Position Reductions 2007 - 2010	-	$ 11,110,769	$ 2,327,229		FTE Reductions through attrition 3.0 2007, 3.0 2008, 9.0 2009 & 6.5 2010
Technology Initiatives					
Service Center					
Help Desk Improvements	$ 276,833	2,484,953	775,044		FTE Reductions through attrition 7.0 4th quarter 2010
Workstation Standardization					
Alternate Workstation Replacement	86,593	2,255,309	556,073	5,500	Productivity hours available to re-purpose to areas in need
Server Consolidation					
Server Consolidation & Virtualization	135,000	1,414,719	543,476	10,600	Productivity hours available to re-purpose to areas in need
Service Delivery Improvements					
Multi-Year Contracting	-	3,127,986	687,533		
Performance Metrics	-				See Non-quantifiable benefits section
Change Management	-				See Non-quantifiable benefits section
IT Reorganization Program Costs					
Labor, Consultant, Other Support Costs	2,186,409				
Subtotal	**$ 2,684,835**	**$ 20,393,736**	**$ 4,889,356**	**16,100**	
Related Projects - in progress					
Power Management	114,097	799,756	148,748		Expand current base from Executive branch to all departments
ABT					See ABT- Cost Benefit Model
IT Project Management	-				See Non-quantifiable benefits section
Asset Management	-				See Non-quantifiable benefits section
Telecommunications Plan Management	-	1,880,900	376,180		
Subtotal	**$ 114,097**	**$ 2,680,656**	**$ 524,928**	**-**	Investment funding provided by various IT projects
IT Operational Maturity	400,000				
Server Operations				9,580	Productivity hours available to re-purpose to areas in need
Desktop Operations				11,000	Productivity hours available to re-purpose to areas in need
Service Center Operations				20,500	Productivity hours available to re-purpose to areas in need
Total	**$ 3,198,932**	**$ 23,074,392**	**$ 5,414,284**	**57,180**	

* Investment amounts are not included in net savings above. Technology Initiatives amounts equal total from 2007, 2009, and projected 2010 needs.

Comparison with Previously Reported Benefits

The following table indicates the summary differences between the current savings and investment projections and what was previously communicated in last year's update. The update provides a comparison from 2008-2013 consistent with the six year financial plan requirement for budgets. Prior saving amounts and investments have been adjusted to reflect the same time period.

IT Reorganization Program Area	Prior Projections 2008-2013	New Projections 2008-2013	Difference
Workstation Standardization	$ 5,200,135	$ 2,255,309	$ (2,944,826)
Server Consolidation	712,242	1,414,719	702,477
Service Center & Multi-year contracts	2,067,569	5,612,939	3,545,370
Organization Transition	-	11,110,769	11,110,769
Related Projects – in process (see table above)	2,077,041	2,680,656	603,615
Related Projects – opportunities	10,119,720	-	(10,119,720)
Total Savings	**$ 20,176,707**	**$ 23,074,392**	**$ 2,897,685**
Investment	**$ 8,953,864**	**$ 3,198,932**	**$ (5,754,932)**

In last year's report the "Related Projects – opportunities" category included the Telecommunication Platform Migration and Mainframe Phase-out projects. The projected combined investment and savings for these projects were $3.1 million and $10.1 million in last year's report. The two projects will provide their own benefit realization plans in the future as they become more defined. The table's total change in investment reflects the lower actual investment amounts received since 2007 and a lower expected future investment. Although the investment amount in total has dropped reflecting the decreased investment, the ratio of savings to each investment dollar has increased from $2.25 to $7.21 as additional savings have been identified.

Non-Quantifiable Benefits

Each of the three focus areas - Organization Transition, Technology Initiatives, and IT Operational Maturity - identify significant benefits that are needed to move IT to a service focused organization and consequently provide related service benefits to our customers.

Assumptions

Some of the overall assumptions that were made in order to arrive at overall savings estimates include:

- Labor savings will produce productivity that will be repurposed to other critical IT areas, with the exception of reduced staff as part of the organization transition and the help desk improvements that occur in 2009 and 2010.

- Estimates will be updated on many of the initiatives as formal project plans are initiated or updated.
- Progress to date has slowed due to unavailability of funds. Future savings estimates are based on availability of funds when needed. No attempt is made to estimate the risk of funding not being in place.

Organization Transition

Description

In mid 2006, King County began the journey to restructure IT in the Executive branch based on the recommendation of numerous consultant studies. The goal is to address the decentralized, fragmented IT organization structure that exists today, change it to a structure that improves IT service delivery, reduce costs to provide those services, and position IT to take advantage of emerging technologies. The three key areas addressed by the transition are achieving a customer service focus, improving organizational alignment, and effecting broad organizational and cultural change.

Customer service focus
The new IT organization focuses on customer service as its primary goal and, as a result, better IT service delivery. Improved customer service is directly associated with increased standardization, strengthened management, and improved IT resource allocation. Improved customer service will be achieved directly through a number of means, including but not limited to, streamlined processes, increased focus on customer needs, strengthened accountability, faster response times, self service, and prioritization of changes, better resource utilization, and standard operating procedures.

Organizational alignment
Organizational alignment is the effort to align IT within the Executive branch into an organization that is consistent and supports clear communication and working relationships. Organizational alignment is achieved through streamlined hierarchy as well as a chain of command to more effectively and efficiently manage the complexity of the County's Executive branch IT environment. The reorganization establishes a clear line of authority from the department IT staff, through department IT management, to the CIO, with specific expectations for IT service delivery documented in the service delivery plan agreed upon jointly by the CIO and the Department Director. A consistent organization is accomplished by having similar organization structure and roles across departments as well as better defined internal relationships in the delivery of an IT service.

All Executive branch departments and central IT services (OIRM) have been fully engaged in updating IT organizational structures with the goal of having all IT staff reporting up through their IT management to the CIO. The starting point for this work was established in the Recommended Organization Structure and Plan for Capacity-Building and Transition report.

Organizational/Cultural Change
Research and experience in similar circumstances has demonstrated that changing the structure alone without changing the culture will not accomplish the desired results. Consequently cultural change efforts are included in the work effort for Organization Transition.

Key to transitioning to the new organization structure is development of a culture that contributes and encourages high quality customer service. The goal is to work together toward a shared

vision and model behaviors that support this vision. Fostering an environment of trust and credibility as a team is an important element in creating the new culture. Activities underway that are focused on culture change include: leadership, management development, and staff training.

The leadership and management component addresses IT senior managers and all IT supervisors and managers across Executive branch IT. It is essential for IT leaders to adopt a shared vision, values, mindset and norms for communicating, decision-making, building trust and working together as an effective leadership team.

The staff training component includes all IT staff in the Executive branch IT. The focus in this area is to facilitate staff development of new mindsets, skills and competencies associated with the new structure and culture.

Benefits

There are numerous benefits related to Organization Transition. Changing the organization structure across the Executive branch will enable IT to:

- Focus on service.
- More effectively implement the Technology Initiatives and the IT Operational Maturity focus areas discussed later in this document.
- Operate in a consistent and service based fashion.
- Utilize performance measurements across IT in order to improve service delivery.
- Reduce operational risks related to service delivery due to:
    - Gaps in staff technical knowledge
    - Lack of organizational knowledge and experience, and
    - Broader perspective and ability in resource allocation.

Assumptions

The new structure and IT organization enable IT to meet the Executive and Council goals for IT as described in the Executive Recommendation for IT, including:

- Deliver responsive service to internal customers, the public and other jurisdictions.
- Provide reliable, cost-effective technical and application architectures.
- Create countywide efficiencies for business functions and infrastructure that reflect attention to unnecessary duplication and standardization of standards and processes.
- Support a culture of effective governance, clear accountability, and communication.
- Ensure IT security and privacy.
- Facilitate information sharing – internally and externally.
- Recruit, deploy, and retain an appropriately skilled workforce.
- Serve as leader in IT regional initiatives.

The new IT organization structure also incorporates the following key principles:

- There will be clear and consistent reporting relationships and accountability for IT across the Executive branch.

- The structure will support the development, retention, and effective use of IT management and staff.
- Functions that do not vary across departments will be standardized and/or centralized to reduce cost and increase consistency of service.
- The structure will facilitate customer service.
- The structure will be flexible and adaptable to the changing and diverse business requirements of departments and IT.

2007 - 2010 Position Reductions

Since 2007 the Executive branch IT has annually evaluated staffing levels across the IT function leading to reductions of 3.0 FTEs in 2007, 3.0 FTEs in 2008, and 9.0 FTEs in 2009 for a total reduction of 15.0 FTEs. There is the potential of an additional reduction of 6.5 FTEs in 2010 through attrition which are pending the Council's consideration. This would bring to 21.5 the total number of positions reduced between 2007 and 2010 (not including positions that may be reduced in late 2010 as a result of the Technology Initiatives).

Savings Analysis

Organization Transition - Executive Branch

		2008	2009	2010	2011	2012	2013	Total
Current Costs								
Hardware			-	-	-	-	-	-
Software/Licenses			-	-	-	-	-	-
Staff Labor		44,717,773	46,900,000	47,838,000	48,794,760	49,770,655	50,766,068	288,787,256
	Subtotal	44,717,773	46,900,000	47,838,000	48,794,760	49,770,655	50,766,068	288,787,256
Proposed Costs								
Hardware			-	-	-	-	-	-
Software/Licenses			-	-	-	-	-	-
Staff Labor		44,145,690	45,400,000	45,645,000	46,557,900	47,489,058	48,438,839	277,676,487
	Subtotal	44,145,690	45,400,000	45,645,000	46,557,900	47,489,058	48,438,839	277,676,487
Proposed Savings		**572,082**	**1,500,000**	**2,193,000**	**2,236,860**	**2,281,597**	**2,327,229**	**11,110,769**

Assumptions		
2009 Executive IT FTEs	463	
Burden Average Salary	$ 100,000	
COLA 2009	4.9%	
COLA 2010 - 2013 (2.0% Floor)	2.0%	
2007 FTE Reduction	3.0	
2008 FTE Reduction	3.0	
2009 FTE Reduction	9.0	
2010 FTE Reduction	6.5	Pending Council's consideration and approval.

Technology Initiatives and Related Projects

Significant work on the four Technology Initiatives - Service Center, Workstation Standardization, Server Consolidation, and Service Delivery Improvements - is currently underway. In addition, related projects that align with the IT Reorganization program's goals and needs and are expected to provide significant benefits have been identified. These are not directly part of the IT Reorganization capital program's plans but are areas that IT Reorganization has identified as also needing to be addressed.

An updated view of the benefits to be realized as implementations occur is detailed in this section for the following projects:

Technology Initiatives

- Service Center
  - Help Desk Improvements
- Workstation Standardization
  - Alternate Workstation Replacement
- Server Consolidation
  - Server Consolidation and Virtualization
- Service Delivery Improvements (previously called Enterprise Architecture)
  - Multi-Year Contracting
  - Performance Metrics
  - Change Management

Related Projects – In Progress

- Power Management
- IT Project Management
- Asset Management
- Telecommunications Plan Management

Each project is briefly discussed and includes the current understanding of when benefits should become available to the County and an estimate of the associated hardware, software and licensing investment required to achieve these benefits. Benefits also include expected labor efficiencies to be repurposed within Executive branch IT and possible FTE reductions across Executive branch IT lines of business. These are also summarized in the Overall Savings Summary section earlier in this document. In each discussion, assumptions are included. Supporting information used in the analysis is referenced in Appendix B - Source Data.

Due to the broad scope of these efforts, not all projects will be implemented at the same time, but work is being staged based on interdependencies and available budget. In some areas much work has been accomplished, specifically Power Management and Alternate Workstation Replacement. Other projects are in the planning and analysis phases.

Help Desk Improvements

Description

The help desk improvement project now provides end users a single IT Help Desk presence for the County. Short-term improvements completed in 2008 include a consolidated IT Help Desk web portal and single help desk phone number with system health message. Longer term improvements include standardized help desk processes and a single system for department and enterprise IT service requests. By clarifying business needs and work load requirements, and matching these with available skill sets, possible FTE reductions are expected across Executive branch IT lines of business. The potential for the reduction of 7.0 FTEs in the fourth quarter of 2010 is dependent on additional funding for the IT Reorganization Program which is currently being requested. These long term improvements also provide the foundation to maximize the benefit realization of several other Technology Initiatives.

Savings Analysis

Help Desk Improvements - Executive Branch

	2008	2009	2010	2011	2012	2013	Total
Current Costs							
Hardware	-	8,000	1,600	1,600	1,600	1,600	14,400
Software/Licenses	-	21,500	21,500	21,500	21,500	21,500	107,500
Staff Labor	-	3,300,000	3,366,000	3,433,320	3,501,986	3,572,026	17,173,333
Facilities/Power	-	156,710	156,710	156,710	156,710	156,710	783,552
Subtotal	-	3,486,210	3,545,810	3,613,130	3,681,797	3,751,837	18,078,785
Proposed Costs							
Hardware	-	-	-	-	-	-	-
Software/Licenses	-	-	27,000	39,000	39,000	39,000	144,000
Staff Labor	-	3,300,000	3,187,500	2,705,040	2,759,141	2,814,324	14,766,004
Facilities/Power	-	156,710	156,710	123,469	123,469	123,469	683,827
Subtotal	-	3,456,710	3,371,210	2,867,509	2,921,610	2,976,792	15,593,832
Proposed Savings	**-**	**29,500**	**174,600**	**745,622**	**760,187**	**775,044**	**2,484,953**

Investment							
Hardware/Software/Licenses	11,833	265,000	-	-	-	-	**276,833**

Assumptions		
Replacement Cycle	5	years
Current Help Desk Staff	33.0	FTEs
2010 FTE Reduction	7.0	Starting 4th quarter 2010 pending IT reorganization funding approval.
Annual Inflation	2%	
Proposed On-going Cost	20%	of Hardware and Software purchase
Facilities	$85	per sq foot based on Chinook cost
Space per person	56	sq feet based on Chinook building costs

Non-Quantifiable Benefits

Establishing a single IT Help Desk will:

- Improve customer service by increasing focus on customers, reducing response time, and providing clear accountability for service.
- Standardize and improve policies, procedures, and business practices related to customer service.
- Focus agency IT resources on value-added functions.

Alternative Workstation Replacement

Description

The alternative workstation project has already created the central infrastructure and standards necessary to run office applications on alternate workstations, such as thin client devices to replace more expensive PCs in the County. Any department or agency within the County may subscribe to this service. The service currently supports a number of devices and will expand to include other low cost alternate workstations, such as small PCs, as appropriate. This effort is expected to produce annual productivity labor efficiencies of 5,500 hours. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to areas in critical need or to improve customer service.

Savings Analysis

Alternate Workstation Replacement - Countywide

	2008	2009	2010	2011	2012	2013	Total
Current costs							
Hardware	1,714,845	2,269,740	2,290,640	2,209,130	1,965,645	1,714,845	12,164,845
Software/Licenses	-	-	-	-	-	-	-
Asset Replacement	-	428,711	996,146	1,568,806	2,121,089	2,183,789	7,298,541
Staff Labor	-	-	-	-	-	-	-
Subtotal	1,714,845	2,698,451	3,286,786	3,777,936	4,086,734	3,898,634	19,463,386
Proposed costs							
Hardware	1,605,945	2,124,540	1,857,944	1,329,218	1,085,007	1,558,095	9,560,749
Software/Licenses/Service	54,150	83,900	242,456	511,320	606,217	262,938	1,760,981
Asset Replacement	-	397,499	923,317	1,371,959	1,672,045	1,521,527	5,886,348
Staff Labor	-	-	-	-	-	-	-
Subtotal	1,660,095	2,605,939	3,023,717	3,212,497	3,363,269	3,342,560	17,208,078
Proposed Savings	**54,750**	**92,513**	**263,069**	**565,439**	**723,465**	**556,073**	**2,255,309**

Investment							
Hardware/Software/Licenses	86,593	-	-	-	-	-	**86,593**

Assumptions

PCs to Replace in 2008	1,641		2008 Actual thin clients deployment	150
PCs to Replace in 2009	2,172		2009 Expected deployment	200
PCs to Replace in 2010	2,192		2010 Thin clients per 2010 ERPs	596
PCs to Replace in 2011	2,114		2011 Planned thin clients deployment	1,212
PCs to Replace in 2012	1,881		2012 Planned thin clients deployment	1,213
Total	10,000		Total	3,371
Thin client device cost	$ 319	per device - excluding monitor and peripherals		
Annual Replacement Fund	$ 53	estimated seven year life		
Current PC cost	$ 1,045	per device - excluding monitor and peripherals		
Annual Replacement Fund	$ 261	estimated five year life		
Alt Workstation 1st yr service	$ 361	per device		
Alt Workstation on-going service	$ 78	per device		

Applications can be served to small PC device from existing server-based environment
Hardware, software and licensing investment is for build-out of thin client server-based environment

Non-Quantifiable Benefits

Enabling the enterprise deployment of alternate workstations will:

- Improve workstation support through standardized configurations.
- Improve operations by optimizing technology and applications.
- Streamline new workstation deployment.

Server Consolidation and Virtualization

Description

Server consolidation is the process where hundreds of software applications, running on more than 600 existing servers, are being converted to run on a significantly reduced number of servers. This process will eventually reduce the costs associated with supporting servers. Two approaches are being taken – first, similar servers will be consolidated onto one server, and second, virtualization software will be used to partition a physical server device into multiple "virtual" servers and existing physical servers will be migrated to these virtual servers, if they are viable candidates for virtualization. As servers are consolidated, storage devices may also be consolidated. This effort is expected to produce annual productivity labor efficiencies of 10,600 hours. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to areas in critical need or to improve customer service. In 2008 DNS servers were consolidated producing an ongoing savings of $50,000, which are reflected in the amounts below, and freed up one network engineer to support other priorities.

Savings Analysis

Server Consolidation & Virtualization - Executive Branch

	2008	2009	2010	2011	2012	2013	Total
Current costs							
Hardware	960,960	960,960	960,960	960,960	960,960	960,960	5,765,760
Software/Licenses	-	-	-	-	-	-	-
Staff Labor	-	-	-	-	-	-	-
Facilities/Power	195,899	195,899	195,899	195,899	195,899	195,899	1,175,391
Subtotal	1,156,859	1,156,859	1,156,859	1,156,859	1,156,859	1,156,859	6,941,151
Proposed costs							
Hardware	910,960	846,591	640,845	796,304	895,709	495,160	4,585,569
Software/Licenses/Service	-	-	-	-	-	-	-
Staff Labor	-	-	-	-	-	-	-
Facilities/Power	195,899	191,367	158,576	145,125	131,674	118,222	940,863
Subtotal	1,106,859	1,037,958	799,422	941,429	1,027,383	613,382	5,526,432
Proposed Savings	**50,000**	**118,901**	**357,437**	**215,430**	**129,476**	**543,476**	**1,414,719**

Investment							
Hardware/Software/Licenses	-	135,000	-	-	-	-	**135,000**

Assumptions

Targeted for virtualization	256	(2009 40, 2010 53, 2011 54, 2012 54, & 2013 54)
Targeted for consolidation	45	(2009 26 & 2010 19)
Total existing servers	624	
FTE working on servers	32.2	
Proposed hardware	$ 1,429,809	HP virtualization cost model
Equipment replacement	20%	year cycle
Energy old server	$ 314	per server
Energy new server	$ 1,076	per server
Proposed server cost	$ 7,700	per box - includes tax and maintenance (dual processor)
		Proposed servers primarily funded by Equipment Replacement

Non-Quantifiable Benefits

The server consolidation initiative will:

- Improve server maintenance and therefore application reliability through improved central management and server resource provisioning.
- Decrease future new costs for server purchases, maintenance costs for these servers, and on-boarding by maximizing the use of existing server capacity.

Multi-year contracting

Description

While not a technology-based solution, this project addresses a historical practice that causes problems for IT operations. This work effort is focusing on converting existing annual IT contracts to multi-year contracts as they come up for renewal in the Executive branch, is taking advantage of multi-year pricing discounts offered by these vendors, and is re-bidding contracts for more competitive pricing. It also plans to consolidate similar contracts for a vendor into a master contract to take advantage of available volume discounts.

Savings Analysis

Multi-Year Contracting - Executive Branch

	2008	2009	2010	2011	2012	2013	Total
Current costs							
Hardware	7,554,367	7,932,085	7,932,085	7,932,085	7,932,085	7,932,085	47,214,792
Software/Licenses/Service	6,445,633	6,767,915	6,767,915	6,767,915	6,767,915	6,767,915	40,285,208
Staff Labor	-	-	-	-	-	-	-
Subtotal	14,000,000	14,700,000	14,700,000	14,700,000	14,700,000	14,700,000	87,500,000
Proposed costs							
Hardware	7,554,367	7,932,085	7,932,085	7,932,085	7,932,085	7,932,085	47,214,792
Software/Licenses/Service	6,355,501	6,344,965	6,172,095	6,123,897	6,080,382	6,080,382	37,157,222
Staff Labor	-	-	-	-	-	-	-
Subtotal	13,909,868	14,277,050	14,104,180	14,055,982	14,012,467	14,012,467	84,372,014
Proposed Savings	**90,132**	**422,950**	**595,820**	**644,018**	**687,533**	**687,533**	**3,127,986**

Investment

	-	-	-	-	-	-	**-**

Assumptions

Discounts range from 5% to 20%, an average discount of 10% is assumed for proposed costs.
Discount captured on only 30% of contracts

Non-Quantifiable Benefits

Multi-year contracting policies will:

- Reduce effort associated with annual contract renewals.
- Improve stability and consistency of operations through long-term use of vendor products.

Performance Metrics

Description

With a more centralized IT operation, the Performance Metrics work effort allows the County to implement a unified function for identifying, tracking, and reporting the performance of IT operations countywide.

Non-Quantifiable Benefits

The performance metrics project will:

- Increase visibility and accountability of IT operations performance.
- Proactively identify possible issues and problems and address them before they impact operations.
- Provide a baseline for improving customer service and operational efficiency and effectiveness.

Change Management

Description

The Change Management project will implement a coordinated change management function within central IT, across Executive branch IT, and include Separately Elected IT for enterprise-affecting changes to production systems. Change management, asset management, and a properly functioning help desk, are the foundation for improving "IT Operational Maturity." As discussed later in this document, there are potentially significant labor efficiencies by improving the "IT Operational Maturity" of King County.

Non-Quantifiable Benefits

This project will:

- Avoid possible errors or issues that arise from changes to IT infrastructure.
- Improve communication to customers and users about changes and their potential impact to business operations.

Power Management

Description

As part of the County's continued commitment to adopting "green" technologies, this project has implemented the Verdiem Surveyor power management software tool to manage desktop PC power use in the Executive branch and it is currently available for implementation to other departments and agencies in the County. This tool automatically reduces power consumption for desktop PCs that are turned on but have not been used for a period of time and tracks the power utilization of these devices.

Savings Analysis

Power Management - Countywide

	2008	2009	2010	2011	2012	2013	Total
Current costs							
Hardware	-	-	-	-	-	-	-
Software/Licenses	-	-	-	-	-	-	-
Staff Labor	-	-	-	-	-	-	-
Facilities/Power	424,758	424,758	424,758	424,758	424,758	424,758	2,548,549
Subtotal	424,758	424,758	424,758	424,758	424,758	424,758	2,548,549
Proposed costs							
Hardware	-	-	-	-	-	-	-
Software/Licenses/Service	-	19,238	19,238	19,238	19,238	19,238	96,190
Staff Labor	-	-	-	-	-	-	-
Facilities/Power	327,758	297,757	256,772	256,772	256,772	256,772	1,652,603
Subtotal	327,758	316,995	276,010	276,010	276,010	276,010	1,748,793
Proposed Savings	**97,000**	**107,763**	**148,748**	**148,748**	**148,748**	**148,748**	**799,756**

Investment							
Hardware/Software/Licenses	114,097	-	-	-	-	-	**114,097**

Assumptions

Purchased Licenses		9,619	as of 2/09
Surveryor License - maintenance	$	2.00	includes tax
Power Cost	$	44.16	per PC per year (based on 2/09 "Verdiem Energy Savings" Report)
Proposed Power Cost		36.9%	energy savings for 2010 and beyond
GH Gas Reduction per PC		401.00	kWh
As PCs are replaced by thin clients and alternate workstations, comparable power savings are expected			

Non-Quantifiable Benefits

Improving PC power management practices will:

- Properly steward County resources by managing power utilization of PCs not in use.
- Potentially prolong hardware life.
- Further establish the County as a leader in 'green' initiatives.

IT Project Management

Description

Presently, King County invests a large amount of money in monitoring and overseeing IT projects but has varying degrees of expertise responsible for managing these projects. The goal of this project is to improve project management on IT projects. The project will implement a policy that ensures suitable project managers are assigned to IT projects, establish ongoing trainings on internal King County processes and tools, and provide an improved and standardized set of project manager templates with sample documentation.

Non-Quantifiable Benefits

The IT project management project will:

- Increase project success through ensuring the abilities and performance of project managers.
- Create a uniform method of managing projects countywide.
- Improve project oversight by leveraging a defined and consistent set of project expectations and deliverables.

Asset Management

Description

The purpose of the Asset Management project is to implement a central ability to manage the IT computing assets of the County in a unified manner. Change management, asset management, and a properly functioning help desk, are the foundation for improving "IT Operational Maturity." As discussed later in this document, there are potentially significant labor efficiencies by improving the "IT Operational Maturity" of King County.

Non-Quantifiable Benefits

Improved, centralized, and automated asset management will:

- Improve customer service through improved knowledge of customer computers.
- Streamline equipment replacement and equipment surplus efforts.
- Realize ability to fully leverage County assets.

Telecommunications Plan Management

Description

This project reviewed the countywide calling tendencies and selected phone calling plans that financially took most advantage of these tendencies. In addition to the plan review, directory service usage has been modified to capture lower price options and guidelines have been established to remove disconnected phones from plans more timely.

Savings Analysis

Telecommunications Phone Plan Management - Countywide

	2008	2009	2010	2011	2012	2013	Total
Current costs							
Hardware	-	-	-	-	-	-	-
Software/Licenses/Service	5,910,047	5,910,047	5,910,047	5,910,047	5,910,047	5,910,047	35,460,282
Staff Labor	-	-	-	-	-	-	-
Subtotal	5,910,047	5,910,047	5,910,047	5,910,047	5,910,047	5,910,047	35,460,282
Proposed costs							
Hardware	-	-	-	-	-	-	-
Software/Licenses/Service	5,910,047	5,533,867	5,533,867	5,533,867	5,533,867	5,533,867	33,579,382
Staff Labor	-	-	-	-	-	-	-
Subtotal	5,910,047	5,533,867	5,533,867	5,533,867	5,533,867	5,533,867	33,579,382
Proposed Savings	**-**	**376,180**	**376,180**	**376,180**	**376,180**	**376,180**	**1,880,900**

Investment							
	-	-	-	-	-	-	**-**

Assumptions
Moved to new phone plans 11/08
March 2009 started use of 422 calling service
Feb 2009 started wireless disconnection review

Non-Quantifiable Benefits

The Telephone Plan Management project is:

- Improving monitoring of phone usage.
- Improving processes for removing phones from service.

IT Operational Maturity

Background

King County's technology infrastructure is an important asset that is relied upon by all departments and agencies throughout the County in order to complete their public service mission, goals, and mandates.

Because of the heavy reliance on this 'asset', it is incumbent upon the County to manage it effectively. One way to determine if this asset is being effectively managed is to assess the County's overall IT capability and maturity in comparison with other similar organizations. King County IT intends to continually improve its capability over time. To do so, it will periodically re-assess its maturity in order to determine progress over time and to continually identify improvement opportunities.

King County's Executive branch, as part of the IT Reorganization program, conducted analysis of its IT operational maturity using Microsoft's Infrastructure Optimization model in April 2008. This model identifies four levels of overall IT infrastructure maturity and capability. These include:

1. Basic
2. Standardized
3. Rationalized
4. Dynamic

The analysis was performed by Microsoft using actual metrics collected from King County and using a third party assessment tool developed by Alinean. The result of the analysis was a customized assessment report indicating King County's comparative capability and maturity in relation to its peers. Also included in the report are targeted improvement areas leading to increased operational capability and maturity. The detailed assessment report and appendices to the report are available upon request.

King County's identified overall level of maturity is identified as Basic – the first level of maturity in the model. While this seems low, the detailed placing was on-average, slightly above the regional/state/local government industry peer group average with some areas higher and others lower.

The current efforts of the IT Reorganization program, once implemented, should place the County on-par with regional/state/local government industry leaders that are at the standardized level (level 2) of capability and maturity.

Opportunity

King County has the potential for significant labor efficiencies as well as improved customer service. This can be accomplished by moving to the rationalized level of maturity (level 3) through implementation and utilization of additional best practices in the areas of Server

Operations, Workstation Operations, and Service Center Operations. The description of a 'Rationalized' level of maturity is:

> "**Rationalized** – IT organizations have very low IT labor costs and show modest improvement in services levels and agility compared with the two lower groups. These organizations use many IT best practices and automate and standardize the IT infrastructure wherever possible. This leads to more funds being available for innovation investments"

This effort will implement best practices as well as automated, pro-active toolsets to improve the management of the County's server, workstation and service center operations. These improvements should result in significant labor efficiencies of over 41,000 hours annually based on benchmark comparisons with peer organizations, meeting another important IT Reorganization program goal of efficient operations. Future evaluation will need to occur to determine how to best repurpose these efficiencies to IT functions in need or to improve IT customer service.

This opportunity is dependent upon accomplishing the IT Reorganization work program outlined for Organization Transition and the Technology Initiatives and is timed to occur after these are completed. The following sections provide additional detail about the three areas of focus: server operations, workstation operations, and service center.

Server Operations

Description

Moving the County's server operations to a rationalized level will require improvements in addition to the Technology Initiatives already underway in the areas of:

- Automated server operating system image deployment,
- Defined set of standard basic images for 80% or more of servers,
- Expanded use of virtualization technology, and
- Service level agreements for more than 80% of servers and central monitoring of these servers.

Benefits

By making these improvements, total labor efficiency, when combined with the previous Technology Initiatives, is projected at 9,580 hours annually. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to places in need or to improve customer service.

The estimated costs associated with implementing these additional best practices have been estimated at $400,000 for both server and desktop operations. This does not include the costs of internal staff labor.

Desktop Operations

Description

Moving the County's desktop operations to a rationalized level will require improvements in addition to those currently underway in the areas of:

- Automated operating system image deployment to desktops,
- Automated tracking of hardware and software assets,
- Formalized application compatibility testing and packaging of application installations, and
- Expanded use of virtualization technology.

Benefits

By making these improvements, total labor efficiencies are projected at 11,000 additional hours annually beyond what is expected from the current technology initiatives already discussed. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to places in need or to improve customer service.

As mentioned under server operations, the estimated costs associated with implementing these additional best practices has been estimated at $400,000 for both server and desktop operations. This does not include the costs of internal staff labor.

Service Center Operations

Description

Moving the County's service center performance to a rationalized level is primarily dependent upon the improvements in the server and desktop areas. By realizing those benefits, the service center can be enabled to respond to and solve incidents more quickly. It will also have fewer incidents to respond to.

It also requires that processes be in place for standard ticket tracking, incident resolution, and problem resolution as well as staff dedicated to these activities as their priority work.

Benefits

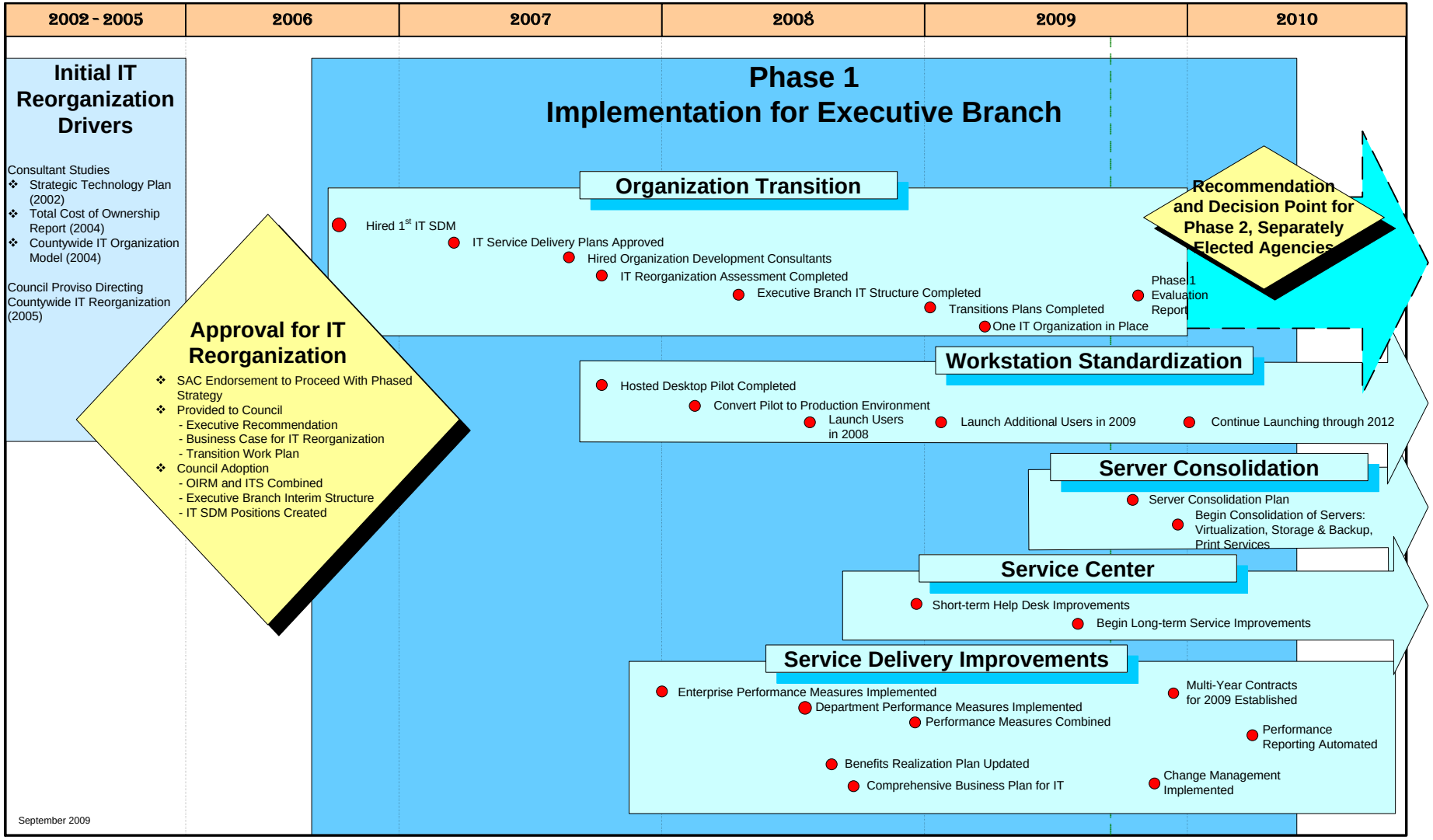
It is anticipated that labor efficiencies related to all tiers of incident/problem resolution (this includes those answering calls as well as experts called in to resolve difficult technical issues) will be approximately 20,500 hours. This savings comes from an expected reduced effort related to handling incident and trouble calls as infrastructure and related support practices become rationalized. Not only will there be fewer service interruptions, but the time and resources it takes to address those that do occur should be drastically reduced. Many of the problems will be taken care of pro-actively, as part of on-going operations so that the help desk operations never

become involved. Future evaluation will need to occur to determine how to best re-purpose these efficiencies to places in need or to improve customer service.

Unlike the other two efforts, this effort does not have any additional expected implementation costs. However, it does rely on the Server and Desktop operational improvements previously identified.

Appendix A - IT Reorganization Roadmap

Updated IT Reorganization Road Map



Appendix B – Source Data

Help Desk

1. Current Hardware and Software = IBIS for OIRM; DCHS and DPH provided numbers
2. Current Staff Labor = IT SDM and OIRM Managers provided labor estimate for Help Desk (April 2008)
3. Proposed Software and Licensing = LanDesk estimate for Service Center licensing and maintenance

Alternate Workstation Replacement

1. PCs to Replace = KC Equipment Replacement Plans available July 2008; 2008 is actual number TC devices
2. Thin client device cost = MTM contract
3. Thin client service cost = OIRM proposed rate

Server Consolidation and Virtualization

1. Hardware costs, power reduction, labor = HP
2. Consolidation 2009 & 2010 = ITSDM review
3. Virtualization 2009 & 2010 = ITSDM review
4. Virtualization 2011 & 2013 = HP

Multi-Year Contracting

1. Discount rates = OIRM analysis of existing contracts

Power Management

1. Power Costs = Verdiem projections July 2008
2. Greenhouse Gas = Verdiem projections July 2008
3. Investment and projected = Actual for 9,619 PCs
4. Hardware, Software costs = actual costs
5. 2008 = Actual results
6. 2009 = Annualized based on Feb YTD actual

Organization Transition

1. Actual 2009 Forecast = 2009 budget reduction
2. Forecast 2010 = 2009 budget planned 2010 reduction

Telecommunications Plan Management

1. New plans effective Nov 2008
2. Plan estimate = OIRM